

**UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
RENTON, WASHINGTON 98055-4056**

**Exemption No. 5535A**

In the matter of the petition of

**United Airlines**

**Regulatory Docket No. 26971**

for an exemption from § 121.314  
of the Federal Aviation Regulations

**GRANT OF EXEMPTION**

By letter dated March 22, 1993, Mr. Jim Takeuchi, Director, Engineering Programs and Control, United Airlines, petitioned for an amended partial exemption from § 121.314 of the Federal Aviation Regulations (FAR) to permit a 1-month extension in the compliance time for the retrofit of Class C and D cargo compartment liners, over the time currently granted to the Air Transport Association of America (ATA) for all affected operators in Exemption 5535.

Exemption 5535 was granted on October 20, 1992, to permit six months additional compliance time for repair of cargo compartment liner details, beyond the time granted by Exemption 5288B. Exemption 5288B was granted on March 20, 1992, and was a second amendment to Exemption No. 5288 which was granted on March 18, 1991. That exemption permits the operation of airplanes that do not comply with §§ 121.314 and 135.169(d) after March 20, 1991, under a specified schedule, depending on the model. In addition, the exemption grants fleet wide relief for repairs. This relief is divided into two parts: (1) new repairs must comply with the regulations after September 20, 1991, and (2) all repairs must be in compliance after March 20, 1992. The exemption was subsequently amended by Exemption No. 5288A to allow relief for two operators from the "new repair" portion of the requirement by extending the compliance time by 30 days. Exemption 5288B was issued to extend the compliance date until October 20, 1992, for repairs specifically addressed to "design features" of cargo compartments.

**ANM-93-027-E**

**Section of the FAR affected:**

Section 121.314, as amended by Amendment 121-202, requires, in part, that after March 20, 1991, all Class C and D cargo compartments greater than 200 cubic feet in volume, used on airplanes in air carrier, air taxi and commercial service, have liners constructed of fiberglass or material satisfying the test requirements of § 25.855, as amended by Amendment 25-60, or, in the case of liners approved prior to March 20, 1989, aluminum.

**Related Section of the FAR:**

Section 25.855(a-1)(1), as amended by Amendment 25-60, incorporates a new flame penetration test using an oil burner. This test is required of liner materials in Class C and D cargo compartments on affected airplanes, regardless of whether or not the material is fiberglass. These test standards are contained in Appendix F, Part III, of Part 25. Section 25.855(a-1)(1) applies primarily to newly designed airplanes for which an application for type certificate is made after June 15, 1986. As noted above, the test standards of this section also serve as an optional means of compliance with § 121.314 for other airplanes.

**The petitioner's supportive information is as follows:**

"In accordance with Federal Aviation Regulation (FAR) Part 11, Section 11.25, United Air Lines petitions for an amended partial exemption to FAR 121.314, Amendment 121-202. Specifically, United requests extending the deadline of Exemption 5535 from April 20, 1993 to May 20, 1993 in order to complete improved fire resistance re-repairs to contoured cargo bay liners on 727, 737-222/291/2A1 and DC 10 aircraft.

"BACKGROUND: United's original petition, which was granted by Exemption No. 5535, outlined Amendment 121-202's requirements for upgrading the fire resistance of Class C and D transport category airplane cargo compartments greater than 200 cubic feet in volume. The petition dealt with a portion of the amendment which was interpreted to mean that contoured, molded or curved surface liners previously repaired for punctures, tears, and slits would need to be re-repaired in a fashion meeting the requirements of FAR 121.314. It was mentioned that contoured liners made up only 2 to 5% of the total cargo pit surface area (flat surface re-repairs were completed several months earlier).

"At the time of the petition, no practical contoured surface re-repair method existed, however, one was under development in the form of a fire blocking intumescent coating. Due to the tremendous potential for cost saving, the petition requested a six month extension from October 20, 1992 to April 20, 1993 to allow for development and certification of the coating, vendor packaging, and distribution, United receiving and

distribution of the product, and United re-repairs of aircraft liners. The petition requested exemption for United's entire fleet, but a supplemental information letter stated the majority of UAL's aircraft would not need re-repair due to newness, protected liner location or minimal liner quantity (all aircraft not covered by this petition are now in compliance or have been retired).

"The FAA determined the six month extension was warranted, and found that a Grant of Exemption was in the public interest and would not affect the level of safety provided by the regulation. In so doing, the FAA recognized that the vast majority of United's aircraft were already in full compliance.

"PROBLEM: It is not possible for United to complete coating application by April 20, 1993 without extensive rerouting of aircraft or removal from service.

"The original petition provided a schedule of events to justify the six month extension. The coating vendor, Akro Fireguard Products Inc., anticipated completion of development and certification by November 20, 1992. The remaining events were to follow the schedule shown in Table 1.

<b>Event</b>	<b>Proposed Schedule</b>	<b>Actual Schedule</b>
Vendor Coating development and certification	Complete 1/20/92	Complete 1/27/93
Vendor Coating packaging and distribution	Complete 2/20/92	Start 2/23/93 Complete 3/18/93
UAL receiving and distribution	Complete 1/20/93	Start 2/24/93 Complete (in progress)
UAL re-repair	Complete 4/20/93	Start 3/1/93 Complete (in progress)

Table 1 - Proposed/Actual Coating Implementation Schedule

"Due to circumstances beyond United's control, certification was not received until January 27, 1993. Vendor coating kit distribution to United began on February 23, with a second shipment on March 8, and a final shipment on March 18. The first shipment was used for local (SFO & OAK) accomplishment of a small number of DC10 aircraft. UAL distribution to accomplishing line stations is now underway as expeditiously as possible. Coating application began shortly after receipt of the first kit, but with only 50 of the 90-day application period remaining.

"SOLUTION: Due to circumstances beyond United's control, additional time is needed to offset the extended development/certification time used by the coating vendor. All other elements of the program are in place but were delayed and are not anticipated to disrupt scheduled revenue service if additional time is not granted.

"RATIONALE FOR THE REQUESTED EXTENSION: A one-month extension is required beyond April 20, 1993. With coating kits in hand, it is now possible for United to control the remaining kit distribution and re-repair tasks. By rearranging schedules, United feels it can compress these tasks into the 60-day period (as of 3/22/92) leading up to May 20, 1993."

"Removal of non-compliant aircraft from revenue service after April 20, 1993, would not be in the best interest to the public when the offsetting gain is virtually imperceptible.

"PETITION FILING DATE RATIONALE: United could not accurately predict the additional time need to comply until after coating certification and vendor delivery of kits.

"REQUEST TO FOREGO PUBLICATION/COMMENT PROCEDURES: FAR Part 11, Section 11.27, provides rules under which the petition need not be published in the Federal Register for comments. United request these rules be considered and forego publication because: (1) no precedent is being set; (2) the reasons presented are identical to the previously granted exemption reasons; (3) the previously granted exemption produced no public comments; and (4) the publication/comment process would jeopardize ruling on this petition prior to the current exemption deadline (4/20/93)."

The FAA finds, for good cause, that action on this petition should not be delayed by public comment. This action involves a minor extension of compliance time of an exemption which has been published for comments, and for which no comments were received. Therefore, there is no precedent being set in this matter.

**The Federal Aviation Administration's analysis/summary is as follows:**

As noted by the petitioner, design features comprise typically only a very small portion of the affected surface area of the cargo compartment. In addition, the issue of the integrity of the design feature repair is only of concern once the original liner material has become damaged. Thus, the majority of the time, this small area is equivalent, in terms of fire resistance to the larger flat surface areas of the cargo compartment. Repairs for design features, that comply with the requirements of § 121.314, have only recently been developed for general applications and have even more recently been made widely available.

The technical rationale for granting of this petition is the same as discussed in Exemption 5535. In summary, the small size of the areas affected, as well as the current high degree of compliance already present in the petitioner's fleet, make a granting of additional time negligible with respect to safety impact. In reviewing the petitioner's reasons for requesting additional time beyond that already granted, the FAA notes that this is due to small slippages in schedule of availability of repair kits and materials, and the need to distribute these to field stations. The requested extension corresponds to the amount of schedule slippage, and is not unreasonable. As noted by the petitioner, denial of this petition would result in removal of airplanes from service, which is an economic burden, and was not intended by the regulation.

In consideration of the foregoing, I find that a Grant of Exemption is in the public interest and will not affect the level of safety provided by the regulations. Therefore, pursuant to the authority contained in §§ 313(a) and 601(c) of the Federal Aviation Act of 1958, delegated to me by the Administrator (14 CFR 11.53), the petition of United Airlines is hereby granted with the following provisions:

Repairs to cargo compartment liner details of transport category airplanes must comply with § 121.314 as adopted by Amendment 121.202, after May 20, 1993.

Provisions of Exemption No. 5288, 5288A, 5288B and 5535, together with their conditions and limitations, remain the same and are applicable to this exemption.

Issued in Renton Washington, on

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Transport Airplane Directorate  
Aircraft Certification Service, ANM-100

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